

Form PTO-1449
U.S. DEPARTMENT OF COMMERCE (Rev. 7-80)
PATENT AND TRADEMARK OFFICE

LIST OF PRIOR ART CITED BY APPLICANT
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ATTORNEY DOCKET NO.: 05015.0251 ^{U2}

APPLICANT: Barbee *et al.*

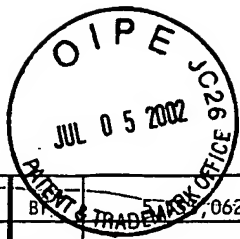
FILING DATE: December 1, 1999

RECEIVED
JUL 10 2002
SERIAL NO.: 09452-827

TC 1700
February 8, 2002
GROUP: Unassigned

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NO.	DATE	NAME	SUBCLASS	FILING DATE IF APPROPRIATE
KIM	AA	6,050,509	04/18/00	Clarey <i>et al.</i>		03/18/98
	AB	5,882,751	03/16/99	Occhiello <i>et al.</i>		05/18/95
	AC	5,830,544	11/03/98	Kerscher <i>et al.</i>		
	AD	5,807,630	09/15/98	Christie <i>et al.</i>		
	AE	5,780,376	07/14/98	Gonzales <i>et al.</i>		
	AF	5,747,560	05/05/98	Christiani <i>et al.</i>		
	AG	5,728,764	03/17/98	Bauer <i>et al.</i>		
	AH	5,665,454	09/09/97	Hosoi <i>et al.</i> MAGNETIC TAPE		
	AI	5,648,159	07/15/97	Sato PHOTORESIST		
	AJ	5,620,774	04/15/97	Etchu <i>et al.</i>		
	AK	5,612,138	03/18/97	Kurz <i>et al.</i>		
	AL	5,578,672	11/26/96	Beall <i>et al.</i>		
	AM	5,552,469	09/03/96	Beall <i>et al.</i>		
	AN	5,530,052	06/25/96	Takekoshi <i>et al.</i>		
	AO	5,514,734	05/07/96	Maxfield <i>et al.</i>		
	AP	5,434,000	07/18/95	Konagaya <i>et al.</i>		
	AQ	5,429,999	07/04/95	Naé <i>et al.</i>		
	AR	5,414,042	05/09/95	Yasue <i>et al.</i>		
	AS	5,385,776	01/31/95	Maxfield <i>et al.</i>		
	AT	5,382,650	01/17/95	Kasowski <i>et al.</i> CATALYSTS		
	AU	5,374,306	12/20/94	Schlegel <i>et al.</i> LUSTER PIGMENTS COATED ALUMINA		
	AV	5,340,884	08/23/94	Mills <i>et al.</i>		
	AW	5,336,647	08/09/94	Naé <i>et al.</i>		
	AX	5,334,241	08/02/94	Jordan		
	AY	5,314,987	05/24/94	Kim <i>et al.</i>		
	AZ	5,273,706	12/28/93	Laughner		
	BA	5,248,720	09/28/93	Deguchi <i>et al.</i>		
	BB	5,206,284	04/27/93	Fukui <i>et al.</i>		
	BC	5,164,460	11/17/92	Yano <i>et al.</i>		
	BD	5,164,440	11/17/92	Deguchi <i>et al.</i>		
KIM	BE	5,153,061	10/06/92	Cavagna <i>et al.</i>		



KIWL	BT	5,062,062	10/06/92	Grolig et al. Process for making <i>polyethylene glycol</i>
	BG	5,149,485	09/22/92	Belcher
	BH	5,110,501	05/05/92	Knudson Jr. et al.
	BI	5,102,948	04/07/92	Deguchi et al.
	BJ	5,091,462	02/25/92	Fukui et al.
	BK	5,028,462	07/02/91	Matlack et al.
	BL	4,994,313	02/19/91	Shimizu et al.
	BM	4,983,719	01/08/91	Fox et al.
	BN	4,957,980	09/18/90	Kobayashi et al.
	BO	4,894,411	01/16/90	Okada et al.
	BP	4,889,885	12/26/89	Usuki et al.
	BQ	4,810,734	03/07/89	Kawasumi et al. <i>monomer</i>
	BR	4,777,206	10/11/88	Rittler
	BS	4,769,078	09/06/88	Tso
	BT	4,742,098	05/03/88	Finlayson et al.
	BU	4,739,007	04/19/88	Okada et al.
	BV	4,677,158	06/30/87	Tso et al.
	BW	4,676,929	06/30/87	Rittler
	BX	4,600,409	07/15/86	Campbell
	BY	4,595,715	06/17/86	Kuze et al.
	BZ	4,546,126	10/08/85	Breitenfellner et al.
	CA	4,536,425	08/20/85	Hekal
	CB	4,517,112	05/14/85	Mardis et al.
	CC	4,482,695	11/13/84	Barbee et al.
	CD	4,472,538	09/18/84	Kamigaito et al.
	CE	4,450,095	05/22/84	Finlayson
	CF	4,442,163	04/10/84	Kühner et al. <i>sulfonates + resins</i>
	CG	4,434,076	02/28/84	Mardis et al.
	CH	4,434,075	02/28/84	Mardis et al.
	CI	4,412,018	10/25/83	Finlayson et al.
	CJ	4,410,364	10/18/83	Finlayson et al.
	CK	4,398,642	08/16/83	Okudaria et al.
	CL	4,393,007	07/12/83	Priester et al. <i>process for making antistatic agents</i>
	CM	4,391,637	07/05/83	Mardis et al.
	CN	4,219,527	08/26/80	Edelman et al.
	CO	4,208,218	06/17/80	Finlayson
	CP	4,163,002	07/31/79	Pohl et al.
	CQ	4,161,578	07/17/79	Herron
	CR	4,133,802	01/09/79	Hachiboshi et al.
KIWL	CS	4,116,866	09/26/78	Finlayson



KLWL	CT	4,105,578	08/08/78	Finlayson <i>et al.</i>
	CU	4,081,496	03/28/78	Finlayson
	CV	4,071,503	01/31/78	Thomas <i>et al.</i>
	CW	4,064,112	12/20/77	Rothe <i>et al.</i>
	CX	4,018,746	04/19/77	Brinkmann <i>et al.</i>
	CY	3,946,089	03/23/76	Furukawa <i>et al.</i>
	CZ	3,876,552	04/08/75	Moynihan SOLAR ENERGY FILM
	DA	3,843,479	10/22/74	Matsunami <i>et al.</i>
	DB	3,823,169	07/09/74	Staub ANTHRAQUINONE DYES
	DC	3,792,969	02/19/74	Gertisser
	DD	3,700,398	10/24/72	Cole, Jr.
	DE	3,646,072	02/29/72	Shaw
	DF	3,627,625	12/14/71	Jarrett
	DG	3,544,523	12/01/70	Maxion
	DH	3,514,498	05/26/70	Okazaki <i>et al.</i>
	DI	3,499,916	03/10/70	Berthold
	DJ	3,391,164	07/02/68	Straley <i>et al.</i>
	DK	3,281,434	10/25/66	Turetzky <i>et al.</i>
	DL	3,232,934	02/01/66	Hoare
	DM	3,125,586	03/17/64	Katz <i>et al.</i>
	DN	3,076,821	02/05/63	Hoare
	DO	2,966,506	12/27/60	Jordan
	DP	2,957,010	10/18/60	Straley <i>et al.</i>
	DQ	2,938,914	05/31/60	Joyce
	DR	2,924,609	02/09/60	Joyce
	DS	2,737,517	03/06/56	Boyd
KLWL	DT	2,531,427	11/28/50	Hauser

FOREIGN PATENT DOCUMENTS

KLWL	DU	EP 940430	09/08/99	Yoshikawa <i>et al.</i>
	DV	WO 99/41299	08/19/99	Goettler <i>et al.</i>
	DW	WO 99/02593	01/21/99	Barbee <i>et al.</i>
	DX	WO 98/53000	11/26/98	Li <i>et al.</i>
	DY	WO 98/29499	07/09/98	Matayabas <i>et al.</i>
	DZ	JP 10168305	06/23/98	Kato <i>et al.</i> (abstract)
	EA	EP 846723	06/10/98	Serrano <i>et al.</i>
	EB	JP 10133013	05/22/98	Shoji <i>et al.</i> (abstract)
	EC	JP 10077427	03/24/98	Nakashinden <i>et al.</i> (abstract)
	ED	WO 97/44384	11/27/97	Branch
	EE	WO 97/31973	09/04/97	Kobayashi <i>et al.</i>
KLWL	EF	WO 97/31057	08/28/97	Nichols <i>et al.</i>



KIWL	EG	JP 9217012	08/19/97	Oyamada <i>et al.</i> (abstract)
	EH	JP 9176461	07/08/97	Yasue
	EI	EP 780340	06/25/97	Beall <i>et al.</i>
	EJ	WO 97/17398	05/15/97	Farrow <i>et al.</i>
	EK	EP 747451	12/11/96	Beall <i>et al.</i>
	EL	EP 681990	11/15/96	Naé <i>et al.</i>
	EM	WO 96/25458	08/22/96	Haman
	EN	WO 96/08526	03/21/96	Giannelis <i>et al.</i>
	EO	WO 95/14733	06/01/95	Vaia <i>et al.</i>
	EP	EP 650994	05/03/95	Kim <i>et al.</i>
	EQ	WO 95/06090	03/02/95	Maxfield <i>et al.</i>
	ER	JP 7026123	01/27/95	Okamoto <i>et al.</i> (abstract)
	ES	WO 94/29378	12/22/94	Mills <i>et al.</i>
	ET	WO 94/11430	05/26/94	Maxfield <i>et al.</i>
	EU	WO 93/14922	08/05/93	Dalgewicz <i>et al.</i>
	EV	WO 93/11190	06/10/93	Maxfield <i>et al.</i>
	EW	EP 542266	05/19/93	Naé <i>et al.</i>
	EX	WO 93/04125	03/04/93	Curry <i>et al.</i>
	EY	WO 93/04118	03/04/93	Maxfield <i>et al.</i>
	EZ	WO 93/04117	03/04/93	Maxfield <i>et al.</i>
	FA	EP 459472	12/04/91	Yano <i>et al.</i>
	FB	EP 398551	11/22/90	Deguchi <i>et al.</i>
	FC	EP 295336	12/21/88	Rees
	FD	DE 3808623	10/06/88	Fujimoto <i>et al.</i> (abstract)
	FE	DE 3806548	09/15/88	Usuki <i>et al.</i> (abstract)
	FF	EP 278403	08/17/88	Senzo <i>et al.</i>
	FG	EP 261430	03/30/88	Katoh <i>et al.</i>
	FH	EP 186456	07/02/86	Takahashi
	FI	WO 84/03096	08/16/84	Knudson <i>et al.</i>
	FJ	GB 2123014	01/25/84	Goedde <i>et al.</i>
	FK	JP 75010196	04/18/75	(abstract)
	FL	JP 75005735	03/06/75	(abstract)
KIM	FP	GB 1090036	11/08/67	Jarrett

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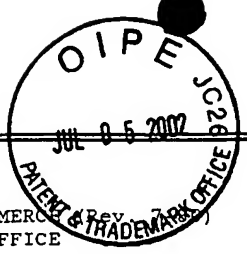
OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

KIM	FQ	LeBaron <i>et al.</i> , "Polymer-layered silicate nanocomposites: an overview," <i>App. Clay Sci.</i> , 15, 11-29 (1999)
	FR	Ke <i>et al.</i> , "Crystallization, Properties, and Crystal and Nanoscale Morphology of PET-Clay Nanocomposites," <i>J. Appl. Polym. Sci.</i> , 71, 1139-1146 (1999)
	FS	Kawasumi <i>et al.</i> , "Preparation and Mechanical Properties of Polypropylene-Clay Hybrids," <i>Macromolecules</i> , 30, 6333-6338 (1997)
	FT	Usuki <i>et al.</i> , "Synthesis of Propylene-Clay Hybrid", <i>J. Appl. Polym. Sci.</i> , 63, 137-139 (1997)
KIM	FU	Giannelis, "Polymer Layered Silicate Nanocomposites," <i>Advanced Materials</i> , 8, 29-35 (1996)



KWL	FV	Kurowaka <i>et al.</i> , "Preparation of a nanocomposite of polypropylene and smectite," <i>Materials Science Letters</i> , <u>15</u> , 1481-1483 (1996)
	FW	Oriakhi <i>et al.</i> , "Incorporation of poly(acrylic acid), poly(vinylsulfonate) and poly(styrenesulfonate) within layered double hydroxides," <i>J. Mater. Chem.</i> , <u>6</u> , 103-107 (1996)
	FX	Messersmith <i>et al.</i> , "Syntheses and Barrier Properties of Poly(ϵ -Caprolactone)-Layered Silicate Nanocomposites," <i>J. of Polym. Sci.</i> , <u>33</u> , 1047-1057 (1995)
	FY	Pinnavaia <i>et al.</i> , "Clay-Reinforced Epoxy Nanocomposites," <i>Chem. Mater.</i> , <u>6</u> , 2216-2219 (1994)
	FZ	Sugahara <i>et al.</i> , "Clay-Organic Nano-Composite; Preparation of a Kaolinite - Poly(vinylpyrrolidone) intercalation Compound," <i>J. Ceramic Society of Japan</i> , <u>100</u> , 413-416 (1992)
	GA	Yano <i>et al.</i> , "Synthesis and properties of polyimide-clay hybrid," <i>ACS, Polymer Preprints</i> , <u>32</u> , 65-66, (1991)
	GB	Fukushima <i>et al.</i> , "Swelling Behavior of Montmorillonite by Poly-6-Amide," <i>Clay Minerals</i> , <u>23</u> , 27-34 (1988)
	GC	Fukushima <i>et al.</i> , "Synthesis of an Intercalated Compound of Montmorillonite and 6-Polyamide," <i>J. Inclusion Phenomena</i> , <u>5</u> , 473-482 (1987)
	GD	Okada <i>et al.</i> , "Synthesis and Characterization of a Nylon 6-Clay Hybrid," <i>ACS, Polymer Preprints</i> , <u>28</u> , 447-448, (1987)
	GE	Fahn <i>et al.</i> , "Reaction Products of Organic Dye Molecules with Acid-Treated Montmorillonite," <i>Clay Minerals</i> , <u>18</u> , 447-458 (1983)
KWL	GF	Greenland, "Adsorption of Polyvinyl Alcohols by Montmorillonite," <i>J. Colloid Sci.</i> , <u>18</u> , 647-664 (1963)
EXAMINER: <i>Katayama/Niporebdu</i>		DATE CONSIDERED: <i>Nov. 7/2002</i>
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.		

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Form PTO-1449

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICEATTORNEY DOCKET NO.: 05015.0251 **U2**SERIAL NO.: 08/452,837-
101072,759

APPLICANT: Barbee et al.

LIST OF PRIOR ART CITED BY APPLICANT
(Use several sheets if necessary)FILING DATE: December 1, 1999
February 8, 2002GROUP: Unassigned
1714

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
KIWL	AA	5,942,320	08/24/99	Miyake et al.			8/26/97
	AB	5,523,045	06/04/96	Kudert et al.			
	AC	5,221,507	06/22/93	Beck et al.			
	AD	5,037,285	08/06/91	Kudert et al.			
	AE	4,983,432	01/08/91	Bissot			
	AF	4,946,365	08/07/90	Kudert et al.			
	AG	4,725,466	02/16/88	Crass et al.			
	AH	4,720,420	01/19/88	Crass, et al.			
	AI	4,680,208	07/14/87	Aoki et al.			
	AJ	4,646,925	03/03/87	Nohara			
	AK	4,429,079	01/31/84	Shibata et al.			
KIWL	AL	4,239,826	12/16/80	Knott, II et al.			

FOREIGN PATENT DOCUMENTS

KIWL	AM	EP 0846723	06/10/98	Serrano et al. (Europe)			
	AN	WO 98/01346	01/15/98	Frisk (PCT)			
	AO	WO 97/30950	08/28/97	Gonzales et al. (PCT)			
	AP	EP 0761739	03/12/97	Sakaya et al. (Europe)			
	AQ	JP 09048908	02/18/97	Oome et al. (Japan) (abstract)			
	AR	EP 0691376	01/10/96	Kotani et al. (Europe)			
	AS	EP 0691212	01/10/96	Kung et al. (Europe)			
	AT	EP 0590263	04/06/94	Kotani et al. (Europe)			
	AU	JP 62073943	04/04/87	Kuratsuji et al. (Japan) (abstract)			
	AV	EP 0202532	11/26/86	Crass et al. (Europe) (abstract)			
	AW	JP 76029697	03/09/76	Japan Metallurgical Ind (Japan) (abstract)			
	AX	JP 75005751	03/06/75	Toyo Boseki KK (Japan) (abstract)			
KIWL	AY	JP 75001156	01/16/75	Toyo Boseki KK (Japan) (abstract)			

ATTORNEY DOCKET NO.: 05015.0251 ^{v2}

PATENT

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OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

KIM	AZ	MSDS - Polyvinyl Alcohol
KIM	BA	MSDS - Clay (Montmorillonite)
KIM	BB	Encyclopedia of Polymer Science and Engineering, 2nd Edition, 12, 364-383 (1988)
EXAMINER: <i>Katarina Hymnreksli</i>		DATE CONSIDERED: <i>Nov 27, 2002</i>
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.		



Form PTO-1449 U.S. DEPARTMENT OF COMMERCE (PTO-80) PATENT AND TRADEMARK OFFICE		ATTORNEY DOCKET NO.: 05015.0251 ^{U2}		SERIAL NO.: 09/452,827 ^{10/073,759}	
LIST OF PRIOR ART CITED BY APPLICANT (Use several sheets if necessary)		APPLICANT: Barbee et al.		FILING DATE: December 1, 1999 February 8, 2002	
		GROUP: 1714			
U.S. PATENT DOCUMENTS					
EXAMINER INITIAL		DOCUMENT NO.	DATE	NAME	CLASS SUBCLASS FILING DATE IF APPROPRIATE
KWL	A1	6,162,857	12/19/00	Trexler, et al.	12/22/97
	A2	6,120,860	09/19/00	Bowen et al.	11/25/96
	A3	6,117,541	09/12/00	Frisk	07/02/97
	A4	6,084,019	07/04/00	Matayabas, Jr. et al.	12/22/97
	A5	6,071,988	06/06/00	Barbee et al.	12/22/97
	A6	6,060,549	05/09/00	Li et al.	05/20/97
	A7	6,036,765	03/14/00	Farrow et al.	04/01/98
	A8	6,034,163	03/07/00	Barbee et al.	12/22/97
	A9	6,017,632	01/25/00	Pinnavaia et al.	08/20/98
	A10	5,993,769	11/30/99	Pinnavaia et al.	05/14/98
	A11	5,952,093	09/14/99	Nichols et al.	02/20/97
	A12	5,660,761	08/26/97	Katsumoto et al.	02/15/95
	A13	5,034,252	07/23/91	Nilsson et al.	
KWL	A14	3,849,406	11/19/74	Basel, et al.	
FOREIGN PATENT DOCUMENTS					
KWL	A15	WO 0034378	06/15/00	PCT	
	A16	WO 0034393	06/15/00	PCT	
	A17	EP 0909787	04/21/99	Europe	
	A18	WO 99/15432	04/01/99	PCT	
	A19	EP 0822163	02/04/98	Europe	
KWL	A20	JP 10001608	01/06/98	Japan (abstract)	
OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)					
KWL	A21	Verbicky, Encyclopedia of Polymer Science and Engineering, 2nd Edition, 12, 364-383 (1988)			
EXAMINER: <i>Katarina Hupovc</i> DATE CONSIDERED: Nov 7, 2002					
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.					



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LIST OF PRIOR ART CITED BY APPLICANT
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ATTORNEY DOCKET NO.: 05015.0251 *U2*

SERIAL NO.: 09/452,827
10/072,759

APPLICANT: Barbeey *et al.*

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GROUP: 1714

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
<i>KIM</i>	A1	6,232,388	05/15/01	Lan, <i>et al.</i>	X	X	03/19/99
<i>KIM</i>	A2	6,057,396	05/02/00	Lan <i>et.al.</i>			08/17/98
							08/11/97

FOREIGN PATENT DOCUMENTS

OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

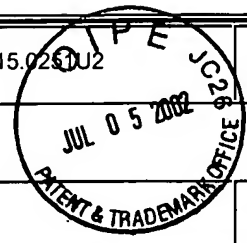
EXAMINER: *Katarina Nymouk* DATE CONSIDERED: *Nov. 7/2002*

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Form PTO-1449 U.S. DEPARTMENT OF COMMERCE (Rev. 7-80) PATENT AND TRADEMARK OFFICE		ATTORNEY DOCKET NO.: 05015.0251 <i>V2</i>		SERIAL NO. <i>10/072,759</i> 09/452,827			
LIST OF PRIOR ART CITED BY APPLICANT (Use several sheets if necessary)		APPLICANT: Barbee <i>et al.</i>					
		FILING DATE: December 1, 1999 <i>February 8, 2002</i>		GROUP: 1714			
U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
<i>KML</i>	A1	5,849,830	12/15/98	Tipursky <i>et al.</i>	 	 	10/15/97
FOREIGN PATENT DOCUMENTS							
<i>KML</i>	A2	EP 0 909 787 A1	04/21/99	Europe			10/15/97
<i>KML</i>	A3	EP 0 899 301 A1	03/03/99	Europe			08/28/97
OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)							
EXAMINER:	<i>Katarina Hiprouskova</i>			DATE CONSIDERED: <i>Nov. 7 / 2002</i>			
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U.S. PATENT DOCUMENTS							
EXAMINER INITIALS		DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
KMF	A1	6,254,803 B1	07/03/01	Matthews et al.			03/24/99
	A2	6,156,835	12/05/00	Anderson et al.			12/22/97
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OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)	

EXAMINER: *Katarina Hymus* DATE CONSIDERED: *Nov. 7/2002*

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.